



Excellence in All We Do!

**GUARANTEED/VIABLE CURRICULUM: What is it we expect students to learn annually in each course?
7th Grade Life Science**

Standard	Standard Description	Proficiency Timeline
Standard 7.5	Examine the cycling of matter between abiotic and biotic parts of ecosystems to explain the flow of energy and the conservation of matter.	1st Nine Weeks
Standard 7.1	Engage in argument from evidence to support claims of the cell theory.	1st Nine Weeks
Standard 7.2	Gather and synthesize information to explain how prokaryotic and eukaryotic cells differ in structure and function, including the methods of asexual and sexual reproduction.	1st Nine Weeks
Standard 7.3	Construct an explanation of the function (e.g., mitochondria releasing energy during cellular respiration) of specific cell structures (i.e., nucleus, cell membrane, cell wall, ribosomes, mitochondria, chloroplasts, and vacuoles) for maintaining a stable environment.	1st Nine Weeks
CCRS Literacy 6.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	1st Nine Weeks
Standard 7.17	Obtain and evaluate pictorial data to compare patterns in the embryological development across multiple species to identify relationships not evident in the adult anatomy.	2nd Nine Weeks

Standard	Standard Description	Proficiency Timeline
Standard 7.12	Construct and use models (e.g., monohybrid crosses using Punnett squares, diagrams, simulations) to explain that genetic variations between parent and offspring (e.g., different alleles, mutations) occur as a result of genetic differences in randomly inherited genes located on chromosomes and that additional variations may arise from alteration of genetic information.	2nd Nine Weeks
CCRS Literacy 7.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	2nd Nine Weeks
Standard 7.4	Construct models and representations of organ systems (e.g., circulatory, digestive, respiratory, muscular, skeletal, nervous) to demonstrate how multiple interacting organs and systems work together to accomplish specific functions.	3rd Nine Weeks
CCRS Literacy 7.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	3rd Nine Weeks
Standard 7.6	Analyze and interpret data to provide evidence regarding how resource availability impacts individual organisms as well as populations of organisms within an ecosystem.	4th Nine Weeks
Standard 7.7	Use empirical evidence from patterns and data to demonstrate how changes to physical or biological components of an ecosystem (e.g., deforestation, succession, drought, fire, disease, human activities, invasive species) can lead to shifts in populations.	4th Nine Weeks
Standard 7.15	Analyze and interpret data for patterns of change in anatomical structures of organisms using the fossil record and the chronological order of fossil appearance in rock layers. 7.15	4th Nine Weeks
Standard 7.14	Gather and synthesize information regarding the impact of technologies (e.g., hand pollination, selective breeding, genetic engineering, genetic modification, gene therapy) on the inheritance and/or appearance of desired traits in organisms.	4th Nine Weeks
Standard 7.17	Obtain and evaluate pictorial data to compare patterns in the embryological development across multiple species to identify relationships not evident in the adult anatomy.	4th Nine Weeks

Standard	Standard Description	Proficiency Timeline
Standard 7.11	Analyze and interpret data to predict how environmental conditions (e.g., weather, availability of nutrients, location) and genetic factors (e.g., selective breeding of cattle or crops) influence the growth of organisms (e.g., drought decreasing plant growth, adequate supply of nutrients for maintaining normal plant growth, identical plant seeds growing at different rates in different weather conditions, fish growing larger in large ponds than in small ponds). 7.11	4th Nine Weeks
CCRS Literacy 7.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	4th Nine Weeks